

# Best Exercises for Those with Lung Disease

Getting regular exercise is important, even if you live with a chronic lung disease. Here's how to safely get the physical activity you need.

# By Rachel Maier, MS

**IT'S NO SECRET** that exercise is an important part of maintaining a healthy life. But if you live with a chronic lung disease, you may wonder if that applies to you anymore. Can you exercise? Should you exercise? You already deal with shortness of breath; won't exercise make it worse?

Believe it or not, regular exercise benefits everyone, even people with chronic lung diseases. If you live with conditions such as bronchiectasis, chronic obstructive pulmonary disease (COPD), interstitial lung disease, asthma, lung cancer, cystic fibrosis, pulmonary hypertension or any other lung disease, you can and should still exercise. However, it's important to understand your disease, how physical activity affects your lung function and how to safely modify exercise and monitor your symptoms before starting any fitness regimen.

# **Risk vs. Benefit**

The benefits of exercise far outweigh the risks, regardless of whether you live with lung disease or not. Exercise helps you reach and stay at a healthy weight, burns calories, combats heart disease, prevents high blood pressure, manages cholesterol, lowers risk of cardiovascular disease, wards off stroke, combats metabolic syndrome and type 2 diabetes, helps manage depression and anxiety, reduces the risk of cancer and helps guard against falls.<sup>1</sup> Plus, exercise makes the lungs stronger and healthier, which is especially important for those with chronic lung disease.<sup>2</sup>

While exercise does carry a marginal amount of risk, it is mostly limited to muscle or bone injuries from tripping, twisting an ankle, straining a muscle, etc.; however, those potential injuries aren't reason enough to skip exercise altogether — not even for people with chronic lung disease.<sup>3</sup>

## Shortness of Breath Shouldn't Stop You

People with chronic lung disease often experience shortness of breath, which can make it somewhat scary to engage in physical activity. Although it sounds counterintuitive, exercising can actually help improve shortness of breath and help you breathe easier over time.

Here's why: Chronic lung diseases may weaken the muscles you use to help you breathe. When these muscles are weak, it can cause shortness of breath. Shortness of breath may deter you from exercising, which makes breathing muscles weaker as time goes on, which exacerbates the shortness of breath, which may deter you from exercising (and so forth). It's a vicious cycle.<sup>2</sup>

On the other hand, exercise builds strength and endurance,

which can ease breathing problems and encourage you to continue exercising. Exercising regularly improves your breathing and enables you to exercise more comfortably.

## **Aerobic Exercises**

Aerobic means "with oxygen"; your muscles require oxygen to move, so when you exercise, your lungs take in more oxygen and your heart pumps faster so more oxygen can reach your muscles. Aerobic exercise is the same thing as cardiovascular exercise (or "cardio").<sup>4</sup> One hundred and fifty minutes of moderate-intensity aerobic exercise per week is recommended for adults, but your doctor may recommend fewer minutes per week if you are managing lung disease; talk to your doctor to confirm the right amount of exercise for you. Walking, jogging, bicycling, hiking, swimming, dancing, jumping rope — any activity that gets your heart rate up is considered aerobic exercise.

## **Strength Training Exercises**

Strength training exercises use resistance to make your muscles work harder than usual. This makes them stronger, and over time, it builds endurance.<sup>5</sup> Strength training requires resistance, but it doesn't necessarily require bulky, heavy weights. Body weight exercises (crunches, pushups, sit-ups, squats, lunges, planks) and resistance bands are effective, inexpensive and convenient. You can easily

Breathing Exercises	What to Do
Belly breathing	<ol> <li>1) Relax shoulders. Sit back or lie down.</li> <li>2) Place one hand on your belly and one hand on your chest.</li> <li>3) Inhale through your nose for two seconds. Feel your stomach expand as air moves into your abdomen.</li> <li>4) Breathe out for two seconds through pursed lips while pressing on your abdomen.</li> <li>5) Repeat.</li> </ol>
Pursed-lip breathing	<ol> <li>1) Inhale slowly through your nostrils.</li> <li>2) Purse your lips, as if you are blowing out a candle.</li> <li>3) Breathe out very slowly through pursed lips. (It should take twice as long to breathe out as it did to breathe in.)</li> <li>4) Repeat.</li> </ol>
Alternate nostril breathing	<ol> <li>Sit down in a comfortable position. Place your left hand on your left knee.</li> <li>Lift your right hand to your nose; using your thumb, gently press down on the right nostril so it closes.</li> <li>Inhale through the left nostril, then using your index finger, press the left nostril closed before exhaling.</li> <li>Release the right nostril and exhale.</li> <li>Inhale through the right nostril, then press it closed before exhaling.</li> <li>Release the left nostril and exhale.</li> <li>Release the left nostril and exhale through it.</li> <li>Repeat for up to five minutes, and end by exhaling through the left nostril.</li> </ol>

#### Table. How to Perform Breathing Exercises

incorporate these exercises at home. Free weights and weight machines are also effective, but carry a larger price tag. They can be purchased and used at your home, or can be used at a local gym. Two days of strength training per week is recommended for adults; talk to your doctor to confirm this amount is right for you. Ask for help to stop smoking, if you haven't already. Find out if you would benefit from using oxygen during exercise (or if you already are on oxygen, whether you need a higher flow while exercising), or if you would benefit from using medicines such as inhalers to prevent breathing problems while exercising.<sup>7</sup>

## **Stretching Exercises**

Better flexibility helps improve joint health, decreases risk of injury, increases blood flow in muscles, helps your muscles work more effectively and improves your body's overall performance during exercise and activities

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of daily living. Regular stretching helps increase flexibility. Stretching exercises can be done anywhere without special equipment. Incorporating Pilates, Tai Chi or yoga are great choices, but you can also do simple stretches at home such as neck stretches, shoulder stretches, knee-to-chest stretches and calf stretches. Aim for five to 10 minutes of stretching two to three times per week.

## **Breathing Exercises**

Your lungs are not muscles, but they work with muscles in your chest and abdomen to expand and contract. Breathing exercises help increase lung function and capacity, which helps combat shortness of breath. They target the muscles used by your lungs and help them build strength and endurance. Examples of breathing exercises include belly breathing, pursed-lip breathing and alternate nostril breathing.<sup>6</sup> Belly breathing strengthens the diaphragm, which is especially helpful for patients with COPD. Pursed-lip breathing slows breathing down and keeps the airway open longer, which aids lung function and improves oxygen and carbon dioxide exchange. Alternate nostril breathing involves inhaling through one nostril while closing the other, switching off between nostrils and repeating. See the Table for how to perform these exercises.

# **Talk to Your Doctor First**

It's important to discuss your lung condition with your doctor before jumping into any fitness routine. Ask questions about your disease, understand your personal potential and limitations and know symptoms to monitor while active. Depending on your condition, your doctor may recommend pulmonary rehabilitation. Pulmonary rehabilitation is a supervised health program designed to equip and empower patients to manage lung disease. Part education and part exercise, its goal is to help improve the symptoms of lung disease by teaching patients practical skills for building strength and endurance. You will learn how to exercise with less shortness of breath, and put what you learn into practice with a professional there to help you.<sup>7</sup>

# **Key Takeaways**

Exercise is good for you, even if you live with chronic lung disease. Your lungs will benefit greatly from engaging in it regularly. Talk to your doctor first. Refrain from smoking. Equip yourself with medicines or oxygen, if needed. Pace yourself. Know the signs and symptoms of when to stop and when to seek medical attention. Start small, but be consistent. Every time you exercise, you are doing something good for your body and helping to make your lungs stronger.

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